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SCHULZE BROS.,

ILLUSTRATED AND DESCRIPTIVE

Fruit Book and Planters' Guide

ALSO FULL INFORMATION CONCERNING

SCHULZE'S O. K.

WHOLE ROOT PROCESS

PEDIGREE TREES

MAIN OFFICE:

BRUSSELS, ILLINOIS.

BRANCH:

DEER PLAIN, ILLINOIS.

WHOLE OR PIECE ROOT? DECISION OF NURSERYMEN'S CONVENTION.

"Lances were tilted in spirited controversy in the closing of the American Association of Nurserymen at the Lindell, June 20, 1897, as to whether the best trees grow from whole or piece root. A Kansas member moved, after reading a paper setting forth his own idea, that the convention cease recommending whole roots forever. He said piece roots constituted the good old Kansas way and was good enough for any country. Other members were up in their stirrups instanty, saying the convention might as well go on record as to who struck Billy Patterson, or who killed Cock Robin, and that **the divided root is a failure.** Finally, amid much enthusiasm, the motion was laid on the table, with a five-pound weight upon it.'"—*St. Louis Post-Dispatch.*

ESTABLISHED 1875.

SCHULZE BROS.' NURSERY COMPANY.

Branch: DEER PLAIN, ILL. BRUSSELS, ILL.

FRUIT BOOK AND PLANTERS GUIDE

A BOOK OF READY REFERENCE

CONTAINING

RELIABLE AND UP-TO-DATE INFORMATION, FRUITS OF ALL KINDS ACCURATELY AND FULLY DESCRIBED. FACTS TOLD IN THE SHORTEST MANNER CONCERNING THE VARIOUS FRUITS, AND WHEN AND WHERE TO PLANT THEM.

COMPLETE INFORMATION CONCERNING

SCHULZE BROTHERS' NURSERY.

AND

SCHULZ'S O. K. WHOLE ROOT PROCESS PEDIGREE TREES.

SCHULZE BROS, PRINT,
Brussels, Ill

READ CAREFULLY AND GET ALL THE INFORMATION THIS BOOK CONTAINS.

DESCRIPTION OF LAND, TREES, Etc.

OUR NURSERIES are located on the best up land on the **Globe** for growing the best trees that **land** and **up-to-date nursery science can produce. No piece root**, poorly shaped, sparingly grown, slender, **no-pruning** system "Cheap John trees," but **O. K. Whole Root Process Trees,** young, healthy, vigorous, **stocky**, well grown and dug (with **SCHULZE BROS. IMPROVED TREE DIGGER**). By using our **improved tree digger** we get **all the roots. SCHULZE TREES** are the best that money can buy, no matter how **much** you pay, nor of whom bought. **SCHULZE TREES** are **pedigree** trees; scions are taken from trees that produce and prove the best in our test and scion orchards, and not from the **nursery** row from year to year, as some nurserymen do, producing a cheap and worthless tree. It is of more importance to have improved trees than to select seed corn or stock, etc., as the latter may be corrected in one year's time should any mistake occur, but with trees it is a life-time. Cheap trees are being offered every day—they should be cheap—for they are **piece root,** scions taken from the **nursery row** or anywhere, from trees that never fruited to show bearing qualities. Good trees should embrace **perfectness** of fruit, **color, size,** etc., and last but not least, fruit that will **stick** to the trees and not fall off and go to waste.

Grades.—SCHULZE TREES are graded in four sizes, XXX, XX, X and Bargain size. Yearlings are graded in height.

The XXX and XX sizes are sure to **please,** while the X and Bargain sizes are equal to **many** sent out by some for **first** and **second** class, and Bargain grades are **O. K. Whole Root Process Trees.** as well as the XXX and XX. In ordering Bargain size, do not order less than 30 of a kind, and in lots of 300 or more.

One-Year trees are **wanted** more and more every year. Expert planters say they are the **best;** can be trimmed and shaped to suit. Some set them in nursery rows and grow them two or three years and then plant them in the orchard. This is all **wrong** and a mistake; plant at once in the proper place, where they are to remain.

We do not try to see how lengthy a list of varieties we can get; on the contrary, we do all that is possible to get the best, no matter how few; better none than a poor kind. Good varieties always pay, no matter how many or how few. As soon as we find any that prove to be below the **standard** of **High Grade,** we do away with them. It is our aim to give every planter dealing with **SCHULZE BROS.** the very **best** for his money, no matter how small or large the order, if amount is at least $1.00. "The **Best** is the **Cheapest.**" "**Quality** of trees is true **test** of **price.**" We want to please you. Should we fail to do so, tell us; and if you are **pleased,** tell others.

How Schulze Trees are Grown.

The seeds of Apple, Pear, Plum, Cherry, Peach, etc., are sown in drill rows and highly cultivated to get a strong growth. The seedling is dug at 1-year, the roots being long and straight, with few branch roots.

The second spring, when the long root is pruned and cut back, each seedling is planted into the nursery row by a planting **machine** of **our own invention**, the only machine ever made for the purpose. In July the seedling is budded on the ☞**O. K. Whole Root Process,** and this bud remains dormant until the next spring. We bud low to make the best trees.

The third spring all the top of the 2-year seedling is cut off, giving the inserted bud a chance to grow out. In the following fall we have a 1-year tree, 3-year root, 4 feet high, with few or no branches. Such trees are wanted more from year to year for the experienced orchard planter to cut back and make the heads at any desired height and grow an even lot of trees.

The fourth spring the unbranched 1-year **shoot** is cut back just as the root had been two years before, and for the same purpose, to make it **branch.** After a fourth summer's care we have a field of **beautiful** 2-year **SCHULZE TREES, 4-year roots.** These trees have a good healthy look, with clean, bright bark and long, thrifty roots, with plenty of fibre root to insure a good growth when transplanted; and even the X size is large enough to indicate a good strong growth, though of less vigor than the XXX (1st) size or than XX (2d) size.

Grafted Whole Root trees require a year's less time than budded Whole Root trees. The 1-year seedling root is cut back same as for budding, has a scion grafted or inserted at the crown and then it is transplanted into the nursery row. Hence a 2-year tree, 3-year root, instead of 4-year root.

Piece root trees of course do not require one seedling for each tree. Short bits of root an inch or two in length are used, one seedling sometimes being cut into seven, nine or more short pieces, each of which is grafted. With so little root power behind them, it is thus clear why 1-year piece root trees are only 1 to 2 feet instead of 4 feet, as trees budded or grafted on the ☞**O. K. Whole Root Process.**

All intelligent fruit growers know that a tree which has grown off **vigorously** in the nursery row **the first year** is **best** and apt **to succeed best.**

Digging clean all fields of 2-year Budded Whole Root trees is the Schulze Nursery plan, using improved tree-diggers, also of our own invention, the first ever made for the purpose of digging **whole root trees** successfully. It is run by six or eight heavy mules, enabling us to get long and perfect roots, free from the scars and mutilations unavoidable in spade digging. **Whole Root trees** have a stronger system and better developed roots than piece root trees. The former enter deeper into the soil, give longer life to the tree, better fruit to the planter. The practice of root grafting has almost disappeared from the east. Eastern buyers desire **strong, healthy trees,** with **deep** and **full root system.** The deep rooted, budded trees enter **deeper** into the ground and make **longer-lived trees** than the root-grafted. Root grafting **cheapens propagation,** but the budded apple tree is a **stronger** and **better tree.**

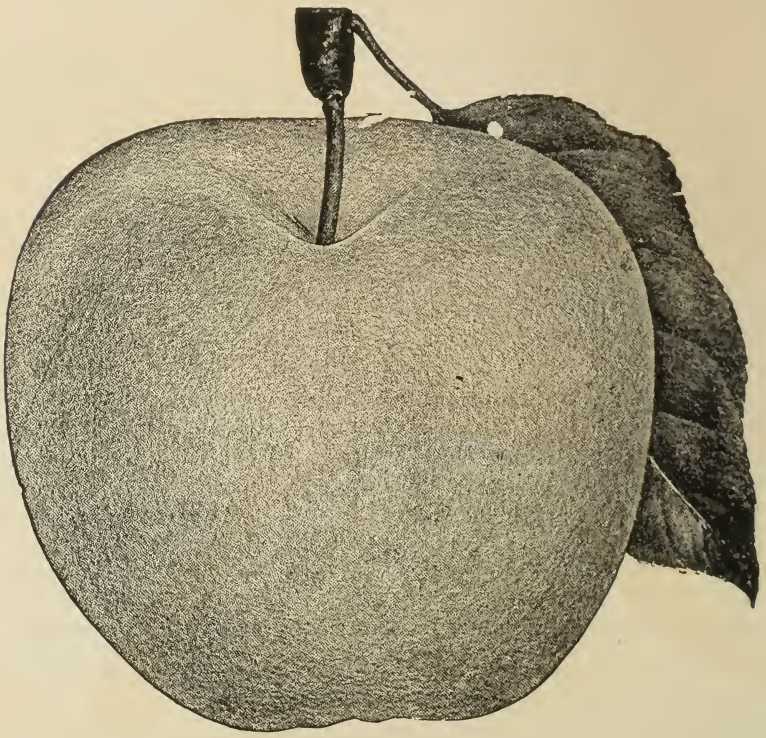
Apples.

The first fruit, both in importance and general culture, is the apple. Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of summer, autumn and winter sorts, a constant succession can be easily obtained of this indispensable fruit for family use.

Our list embraces a most careful selection of the **best** sorts for the several seasons, and few, if any, are omitted, that have proven worthy of general culture.

KEY—(F) Family use; (M) Market; (N) North; (S) South; (C) Central; (E) East.

Summer Apples.



LIVELAND RASPBERRY.

Benoni—Of excellent quality; **best** apple of its season, finer than Red June; valuable for home and market use; medium size, covered with bright red stripes and white specked, making it very attractive; firm and crisp; juicy, aromatic, rich; tree compact and upright, hardy; after attaining age, very productive, on account of its **firmness, beauty** and **fine quality,** resembling a late variety. We recommend **Benoni** for long **distance** shipping; also a safe tree to plant in most localities. Early August. F, M, N, C, S.

Chenango Strawberry—Highly flavored and very handsome; large; oblong; red and yellow striped; attracts attention on the market; especially good for home market August. F, M, C.

Early Harvest—Fine quality; straw color; very good for early market and family use; succeeds best in South and Central.

Liveland Raspberry—I have only one tree of Liveland Raspberry, and it has been nearly cut to death. I am sorry I cannot let you any wood of it. This apple is all claimed for it and a little more. Slightly conical, clear transparent white, splashed and streaked with bright carmine.—John Fraser, Madison Co., Alabama.

Painted from nature for Schulze Bros.

SCHULZE BROS.

THREE MARKET KINGS.

Fine and valuable.

BEN GOLDEN
(TRADE MARK)

Best of all Ben Davis family. Delicious, prolific, thrifty, etc.

SCHULZE BROS.
NURSERY CO.

Three Market Kings!

OLIVER RED.

(SENATOR.)

Is the true name of the apple called Senator, as it was first named; it has been so-called for 28 years past in Arkansas, where it was thought to have come from seed on "the old Oliver farm," in Benton Co. Form roundish, oblate; the form varies, some specimens being nearly flat, while others are only slightly so; size large; stem medium, short and stout; cavity regular, medium wide, deep, rather indistinctly corrugated; color deep yellow ground, covered with a bright red, finely colored; surface covered quite thickly with large russet dots; skin thick; flesh tinged with red; fine grained, juicy; flavor mild sub-acid, sprightly; quality very good. It ripens with Ben Davis, better keeper than Jonathan and equal to Jonathan for fancy trade; heavy and regular bearer; bears young. Washington grower says about it: "Bears every year. Began at four years and out-bears Ben Davis. Tree looks like a pile of apples. Sixteen year old trees average 24 bushels first-class apples. Limbs bend to the ground, but don't break. Plant Senator (or Oliver Red), Black Ben Davis and Apple of Commerce for large orchards."

APPLE OF COMMERCE.

This apple was greatly admired at the World's Fair, Chicago, where it was shown for the first time. Out of 75 varieties of seedling apples this was pronounced by the judges the most promising one. One of the leading judges, who now holds the highest position in horticulture in the United States said: "No Willow Twig was ever **half so good;** this apple will some day be **leading** all the other varieties. It is rich in color, good flavor and full of cider; is a free and regular bearer, **fine keeper** and **ships well.** These qualities should commend it to every farmer. It is what you want —a **money maker.** The tree is a strong, thrifty grower, wood tough, does not split or break when loaded with fruit. I have seen the trees full from the ground limbs to the top." Smooth, highly colored, perfect fruit.—W. G. WINCENHELLER, ARK.

BEN GOLDEN.

(TRADE MARK.)

This is a cross of Ben Davis and Grimes' Golden, is of far better quality than all the other Ben Davis family. In making this cross it was our aim to get an apple as good in quality as Grimes' Golden, or better, and retain the shipping, bearing, cold storage and keeping qualities of the Ben Davis and can say that we have succeeded in this to our entire satisfaction; have fruited the apple and find it better in quality than Ben Davis, Gano or Black Ben Davis, having retained the pleasant and mild flavor of Ben Davis, combined with the rich, juicy, spicy and most delicious flavoring of Grimes' Golden, makes it a quality apple, better than Delicious, Jonathan, or its father Ben and mother Golden. At the age of seven years tree bore 12 bushels of **choice** and **perfect** fruit without being sprayed, which sold at $1.25 per bushel, and was pronounced by all who saw and tasted it, the best apple they ever tasted. All claim it to be **better** than Grimes' Golden. Shaped as Ben Davis, but inclined to be larger, skin tough, bruises dry up, will stand handling better than old Ben Davis; later and a better keeper, especially in cold storage; has been kept in common cellar till 15th June in **perfect** condition and fully retaining its fine flavor Tree is a good grower, thrifty, roundheaded like Ben Davis, requiring but little pruning. Bark of a bright color, with heavy dark down, resembling Ben Davis very much; leaves some darker than Ben Davis; quite downy but more round.

I send scions of the Liveland Raspberry apple. There has been such a demand for them that almost ever bit of last year's wood has been cut for grafting wood. Ripens very early, fine quality, does not bear very young; bears reasonable well. Tree medium growth, very hardy and beautiful—**decidedly better** in **quality, beauty,** and every other respect. **Ripens earlier** and lasts longer; keeps firmly in cold storage until November. Stands handling better than Yellow Transparent. Had 25 bushels of Liveland Raspberry, and received $1 per bushel for them; other apples sold for 50c.—F. O. Harrington, Iowa Co., Iowa.

Red Astrachan—A fine cooker, if not the *best;* good flavor; sells well on account of its high color; medium to large; does not bear young, but not a shy bearer after attaining age. F, M, N, S, C, E.

Red June—Well known; good for family use and early home market. F, M, N, S, C.

Yellow Transparent—Very early and good; a very young bearer, often bearing same year planted. "Has fruited in nursery row." Hardy; dwarfish in habit; use as a filler, or plant close, 14 to 16 ft.; seems to do best on thin soil; much favored for F, M, N, S, C.

Autumn Varieties.

Duchess of Oldenburg—Russian; medium to large; especially hardy for north; noted for early bearing; does well also in S. and C.; fine in Texas and Arkansas; skin slightly yellow and streaked with red, with a faint blue bloom; a very showy apple; flesh juicy and good, with a rich, sub-acid flavor; tree strong grower, uniform in habit, requiring little or no pruning; very productive and valuable. F, M, N, S, C.

Fameuse (Snow)—Bears young; hardy; fine quality; valuable east; subject to scab in Western States; better plant Wealthy.

Haas—A second choice sort, not equal to Wealthy; losing favor and will soon be discarded.

Maiden's Blush—This widely known, valuable, all-round sort, does not need much comment, as most people are acquainted with it. Tree hardy, vigorous, prolific; young bearer and long lived; fruit medium to large size, pale yellow, with a crimson cheek, white flesh, tender, brisk, sub-acid; good value. F,M,N,S,C.

Rambo—Medium size, flat, yellowish white in the shade, streaked and splashed with pale red in the sun; flesh greenish white, very tender, rich and mild; succeeds best on thin or sandy soil. 1st Sept. F, M, C.

Trenton—Yellow as gold; oblong; medium to large; ripens at a time when there are few other apples on the market; like all other golden yellow apples commands high price; known to sell for $3.50 on St. Louis market; tree vigorous grower, attaining large size; very productive. F, M, N, S, C.

Wealthy—A young bearer of fine red apples; ripening before M. Blush, or 6 to 10 days earlier; the very best of its season everywhere. Medium to large, smooth, juicy, fine, vinous; hangs well; tree not a strong grower, but thrifty; not subject to blight; a sure and profuse bearer; limbs seldom break or not at all; a strong tree; favorite *orchard tree* and *market* apple. F, M, N, S, C.

Winter Sorts.

Akin—Supposed to be a seedling of Milam, but larger and better, yet of medium size; fruit of fine appearance; tree strong grower and fair bearer; not a young bearer, but long-lived; a red apple of best quality, spicy, crisp and tender. F, M, N, C.

Arkansas Black—Is a second choice kind, resembling Lawver, but smaller; scabs badly; is a tardy and thin bearer; does best in western Colorado.

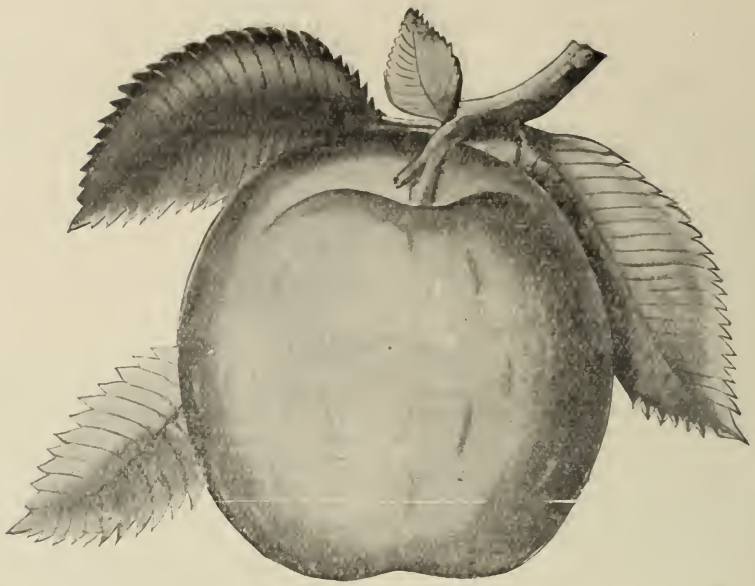
Arkansas Beauty—Fine grained, crimson, with dark red stripes; does best in Colorado and Eastern States; could be better.

Babbitt—Inclined to blight; slow bearer, but excellent tart apple; was awarded first premium by Missouri Horticultural Society as a new and best market apple succeeds best on yellow, thin land. F, M, N, C.

Baldwin—Large, round; deep bright red; juicy, crisp, sub-acid. One of the best winter apples known in the Eastern and Northern States, but South and West it is good value for fall. F, M, N, E.

Bellflower, Yellow — Too well known to require lengthy description; good quality; as a rule does not bear enough to pay for market, though bearing best on thin and sandy land; very inferior on low, rich bottom soil or heavy prairies. F, N, S, C.

Mason, Orange — (Bellflower Improved) — Seedling of Bellflower; like Bellflower, but better and regular bearer; bears at the age of 5 to 6 years old, same as Bellflower; good for family use. N, S, C.



GRIMES' GOLDEN.

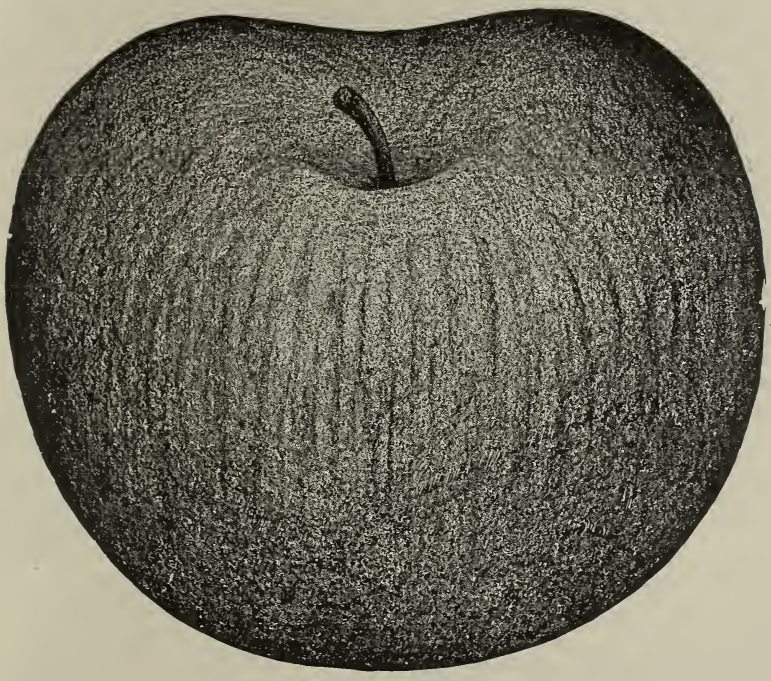
Ben Davis—(New York Pippin, Kentucky Red, etc.)—Large, handsome, oblong, striped and splashed with bright red; does not crack when bruises occur, but dries up instead of rotting, as most sorts do; tree one of the most vigorous growers; thrives well in almost any location in Western, Northern, Southern and Central States; of shapely growth, requiring very little pruning; bears early and annually; the apple is a great traveler, going to England, Germany, etc. There is a larger market for Ben Davis than most other kinds, on account of its remarkable shipping quality, which is **second to none.** A great **pie** apple. The Ben Davis is a leading and profitable orchard fruit, both in the west and east. That veteran fruit grower of Missouri, Judge Samuel Miller, says of it that while not first rate in quality, the vigor, productiveness and early bearing of the tree, render it safe to plant extensively. Even in England it is reported to give satisfaction. The fruit dried or evaporated is white and good; it makes a fine cider and fine for apple butter. For pies it is a great favorite. A bakery in Chicago, which turns out 10,000 pies daily, uses the Ben Davis exclusively. F, M, N, S, C.

Bismarck — Originated in New Zealand, showing wonderful productiveness and early fruiting. A stocky grower, making a small, low tree, which sends out fruiting buds at a very early age. A large, handsome apple, whitish-yellow and streaked with crimson and carmine; chiefly valuable for cooking; perfectly hardy and can be planted anywhere where apples succeed.

Clayton—Strong grower; shy bearer; does not ripen evenly; drops badly; dull red; long keeper; only fairly hardy. Not recommended.

Delicious—Is all that is claimed for it. Is a thrifty grower; very hardy; has never failed to bear full crop; the apples are large, quite even, and for color about half way between a Ben Davis and Jonathan. It is solid; will mellow about Christmas like Jonathan and will keep as long as Mammoth Black Twig; hangs till November. When introduced, nothing will take its place as a commercial apple. Originator, Jesse Hiatt, Iowa. Ships like Ben Davis (bruises dry up like Ben Davis), and fully as large; of nicer color; a stronger grower; will supersede Jonathan when introduced; young and regular bearer.

Gano — Originated in Missouri. Form conical, good size and smooth; solid deep red, resembling Jonathan in color and not quite so dark as Wine Sap; equal to Ben Davis, not quite so large; bruises **dry** up; longer keeper; also more juicy; profitable as Ben Davis for market; tree vigorous grower; very shapely like Ben Davis; productive and annual bearer; coming into notice more each year as one of the leading orchard trees and market apples. F, M, N, S, C, E.



MAMMOTH BLACK TWIG.

Genet, Rawle's—Too well known to require description, but will say that it is in the rank of reliable sorts; very good keeper and retains flavor. Our Genet is of extra sort or **PEDIGREE** kind.

Greening, R. I.—Choice winter apple east, yet losing some on account of taking to blight and scab. Would not recommend it for the west. Fall apple west.

Grimes' Golden — Of extra good quality, productive while young; a late bloomer, which is a valuable point in its favor; tree grows handsome and strong from the ground up. Originated over 100 years ago in Virginia. Will bear up large crops and break down very little, if any. Limbs will bend when loaded, but seldom break; wood hard and tough; medium to large; golden yellow; flesh slightly yellow; aromatic and spicy, richest of fruit; a valuable market and family apple. N, S, C, E.

Huntsman's Favorite—Yellow, bronze cheek, high flavor, fine grained; good to best keeper; will sell well on most any kind of a market; well known and where acquainted will always command a market. Apple large and flat; tree upright grower, also attains very large size. F, M, N, S, C

Ingram—(New Dark Red Genet)—An improved variety of old Genet, originated in Ozarks; seedling of Genet; highly valued where known; good grower and of regular form; **late** bloomer, annual and abundant bearer; medium, conical, **red,** with a touch of yellow. Like Genet, will stand freezing and thaw out without injury; an excellent keeper; **high color** and splendid bearing qualities and pleasant flavor give it a place among the best. Demands high price as it keeps till June, when other well known sorts are gone. A grand market and family apple. F, M, N, S, C.

Jonathan—A great market and family apple; seedling of Spitzenburg; *deep, solid red;* juicy, medium to large, very productive and good keeper. Because of its high color, fine flavor, good keeping quality and uniform size, its value cannot be overrated as a commercial and family fruit. St. Louis, Chicago and other market reports are, as a rule, higher on Jonathan. In New York markets, where Baldwin and other standard sorts are selling at $1.75 to $2.00 per barrel, Western Jonathan will sell freely at $4.50 $5.00. No trouble to sell Jonathan apples.

Mammoth Black Twig—Large, dark red winter apple, at times attaining very large size (20 oz); does best on thin soil; will take the place of Wine Sap. Mammoth Black Twig is fine looking, sells quick and at good prices. Trees grow to great

MAMMOTH BLACK TWIG—Con.

size and have a large fruiting capacity. F, M, S, C, N. Ryan & Richardson, Leavenworth, Kansas, wholesale fruit growers, planted 60,000 trees of Mammoth Black Twig.

King of Tompkins County—Fairly good eating, but of little or no value. S, C. Would not advise planting.

Lawver—Strong grower, but tardy and thin bearer; subject to scab, falls badly, not profitable.

Lady Apple—An old, well known dessert apple; flat; pale yellow, with a deep red cheek; juicy, rich and pleasant. S,C,N. Valuable for home use and general market.

Missouri Pippin—Good grower; quickest return tree known, bearing at the age of 2 to 3 years. Often bears in nursery row; an excellent fill-in-between tree. Longer lived than most sorts of same habits; should be planted at 1-year old and headed back to 2 feet, forming low tops; the apple is one of the best keepers; medium to large; red, with dark red stripes, very attractive; free seller at a good figure. For quick returns plant low top Missouri Pippin; plant one year old, cut back to 2 feet. M,N,S,C.

Newtown Pippin—Good east, in Virginia, North Carolina, and the Pacific States; subject to scab in Central States; not profitable in the west, though a good apple.

Northern Spy—Late bloomer; vigorous grower and hardy far north; fruit large, roundish, striped, with sunny side nearly covered with purplish-red; flesh white and tender, with a mild sub acid, rich, delicious flavor. Trees should be kept open by pruning, so as to admit sun and light freely; not valuable south; does best N, C, F, M.

Paragon—Originated in Tennessee; seedling of Wine Sap; resembles Mammoth Black Twig, but smaller, and not so valuable; inferior sort.

Pewaukee—Coarse, large, dull red, sub-acid; tree vigorous, hardy, but drops its fruit. Originated in Wisconsin and discarded.

Paradise Winter Sweet — An old, reliable sweet apple of medium size; round, nearly red, with a light shade of yellow; bears well; fruit hangs good, often after frost; very hard and firm; flesh white; excellent keeper; a fine apple for winter family use.

Rome Beauty—Fine grained, juicy, good, large; mostly bright red. Its beautiful appearance and large size render it popular; of great value. F, M, N, C.

Romanite—Small, red, late keeper; excellent for winter family use as a dessert; fine market apple, F, M, N, S, C.

Seek-no-Further Once much thought of, but now out of date. Fruit falls; does not keep well.

Shackelford—Large, showy apple, subject to bitter rot and scab. Does not ripen evenly; falls off badly; not good.

Springdale—Large, red, of excellent quality, good keeper; tree grows like Jonathan and deserves recognition; comes into bearing as young as Missouri Pippin; heavy annual bearer; hangs on well; wood tough, will not break under heavy loads; very hardy; one winter stood 26° below zero without sign of injury; not subject to woolly aphis; a good seller, fine shipper. F, M, C, N.

"Grafted Springdale on Ben Davis, which fruited last year. Tree was much exposed to storms. Where Springdale withstood the severest blizzards, the Ben Davis were all knocked down. It is a fine, large apple, good keeper, and a desirable apple for general planting."

PETER KRAUT, Calhoun Co., Ill.

Stayman's Winesap—An origination of Dr. J. Stayman. A seedling of Wine Sap, but more productive, larger and better in many respects; highly recommended by horticulturists and pomologists, will sell in any market. Of a solid red, not quite so dark as the old Wine Sap, which it will soon cause to pass out of cultivation. Dr J. Stayman says: "**Best** apple I know of." Should be planted freely; as good as the best; tree strong grower and prolific; apples hang on well. F, M, N, S, C.

Salome — Tree strong grower; equal to Wealthy in hardiness; not desirable.

Talman's Sweeting—Flesh firm, rich and sweet; excellent for cooking; yellow, crimson on sunny side; tree vigorous and productive, good keeper; ripe in November. F, S, C.

Walbridge—A second choice variety; scabs; dull, greenish color; do not plant any.

Willow Twig—Large, greenish in shade, almost red where the sun and light can get to it; a great keeper; one of the most valuable sorts for cold storage; always commands high prices; planted extensively in Calhoun, Pike and Green Counties, Ill.; also in Southern Illinois. Buyers seek for Willow Twig apple; does best on yellow or sandy, thin land; a deep rooter, especially on **O. K. Whole Root Process.** F, M, S, C.

Wine Sap—Dark red, firm, crisp, juicy, rich; medium; does best on rich, moist land; fruit too small on thin soil; good table and cider apple. Its heavy bearing qualities make it a favorite; tree grows irregular, but is hardy; deserves place in commercial and family orchards; not so subject to worms as many others. F, M, N, S, C.

Wolf River—Losing favor; would not advise planting; there are better sorts.

York Imperial—(Johnson's Fine Winter)—Is gaining in favor among shippers and tree planters; equal to Newtown Pippin in quality and many other respects, and bears better; light **red**; does not scab. From most points it is reported as a good, full cropper, except far north, where it is not so hardy; medium to large, crisp, juicy, sub-acid; good keeper; has been well tested. Originated in Pennsylvania some 40 years ago, and on account of its high quality is often called the "Red Newtown Pippin." F, M, S, C.

Crabs.

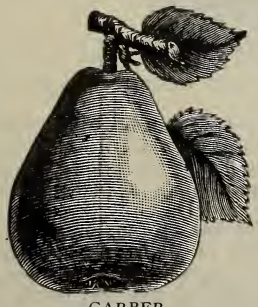
Florence—In offering this variety we can say that it is worth all others combined; there is none better; crimson, splashed with dark red; early, large, young bearer, prolific; most valuable of all. Requires but small space, 8 feet being ample. F, M, N, S, C.

Siberian Red—About an inch in diameter; grows in clusters; lively, scarlet cheek; bears young and abundantly; ripens September 20th to October 1st. F, N, C.

Pears.

KEY—(St.) Standard; (D) Dwarf.

Bartlett—Is an old, well-known sort, and one of the leading pears up to this day; of great value as a dwarf. Should be in every family and commercial orchard. F, M, N, S, C.



GARBER.

Clapp's Favorite—A strong grower; not one of the best, but will do to plant; it is a large, fine-looking pear, and productive. M, N, S, C.—St. and D.

FLORENCE CRAB.

Duchess (D'Angouleme)—For an all-round market and family pear, use Duchess in dwarf (St. Duchess not good); a sure and reliable cropper; often bears first season after planting; almost exempt from blight on quince stock; pear very large, 65 pears to the bushel; should be in every market and family orchard; plant 8 feet each way. F, M, N, S, C.—D.

Early Harvest—Of fine appearance, heavy bearer; but worthless; dry as saw-dust.

Flemish Beauty–Greenish yellow and brown; large size, rich and juicy; highly esteemed as an all-round pear; a strong grower and great bearer; hardy and desirable; in season during September and October. F, M, N, S, C,—St. and D.

Garber—A very strong grower; hardy and productive. Garber and Kieffer go hand-in-hand; Garber is gone when Kieffer comes. For **money** and **fruit plant** Garber and Kieffer. Garber is a bright yellow, with red cheek, beautiful and large, juicy and rich. F, M, N, S, C.—St.

Howell—Large size; light, waxen yellow; sweet and melting, excellent quality; a strong, hardy grower and good bearer; also fine and profitable as a dwarf. F, M, N, S, C.—St. and D.

PEARS—Continued.

KIEFFER.

Kieffer—The great money pear. Like Ben Davis apple, it leads all others in the market. It is the best keeper known, as it will keep till mid-winter easily, in any ordinary cellar; also excellent for canning and preserving. Tree a vigorous grower and wonderfully early cropper; known to produce from two and one-half to three bushels at the age of four years. Large, yellow, with a full blush on sunny side; hangs on well; can remain on tree one to three weeks after ripening; should be planted extensively. F, M, N, S, C.—St.

Lawrence—Does not blight nor scab; for a reliable pear, plant it; it is not of the highest flavor, but good; a fine winter pear, and should be planted. F, M, C, E.—St. and D.

Lincoln Coreless—By no means coreless; of no value at all; a humbug and fraud. When a person offers coreless fruit or sweet rhubard, you may brand him as a shark of the worst kind.

L. B. Jersey—This is an excellent dwarf pear, bearing heavily from year to year on quince; also does well on standard; finely flavored fruit; trees always loaded with immense smooth crops—F, M, N, S, C.—St. and D

Seckel—Family pear, rich, juicy and melting; yellowish russet, with red cheek; flesh whitish; tree does not blight easily; known as the most blight-proof pear; should be in all family orchards; plant five or ten, you will never regret it. Parent tree over 100 years old, still bears. F, M, N, S, C.—St. and D.

Sheldon—Large size, roundish, greenish yellow, mostly covered with thin light russet; very juicy, melting, sweet and vinous; a fine grower and good bearer, but does not succeed as a dwarf (on quince). F, M, N, C.—St.

Tyson (or SUMMER SECKEL)—For family use or home market there is no better pear; very sweet, juicy, buttery, melting, perfumed; fine texture and beautiful; hardy, long-lived; not subject to blight. F, M, N, S, C.—St. and D.

Cherries.

BLACK TARTARIAN.

Baldwin—Large, round, slightly sub acid, sweetest and richest of the Morello type. A fine upright grower, remarkable for earliness, hardiness and productiveness.

Black Tartarian—Very large, purplish black, half tender; flavor mild and pleasant; tree a remarkably vigorous, erect and beautiful grower and an immense bearer; ripe last of June and beginning of July. One of the most popular varieties in the country.

Black Eagle—Large, black, tender, rich, juicy and high flavored; tree a moderate grower and productive. Ripe first of July.

Dye House—Very early cherry; ripens week earlier than Early Richmond; smaller pit than Richmond; hardy and productive. Ripe 15th of June.

WRAGG.

CHERRIES—Continued.

Montmorency, Large } Trees very hardy and
" King } immense bearers,
" Monarch } commencing to fruit *while young*, and is *loaded annually* thereafter with fine crops. Fruit very large, fine flavor, and of bright, clear shining red; valuable everywhere; a week later than Early Richmond. The finest acid cherry.

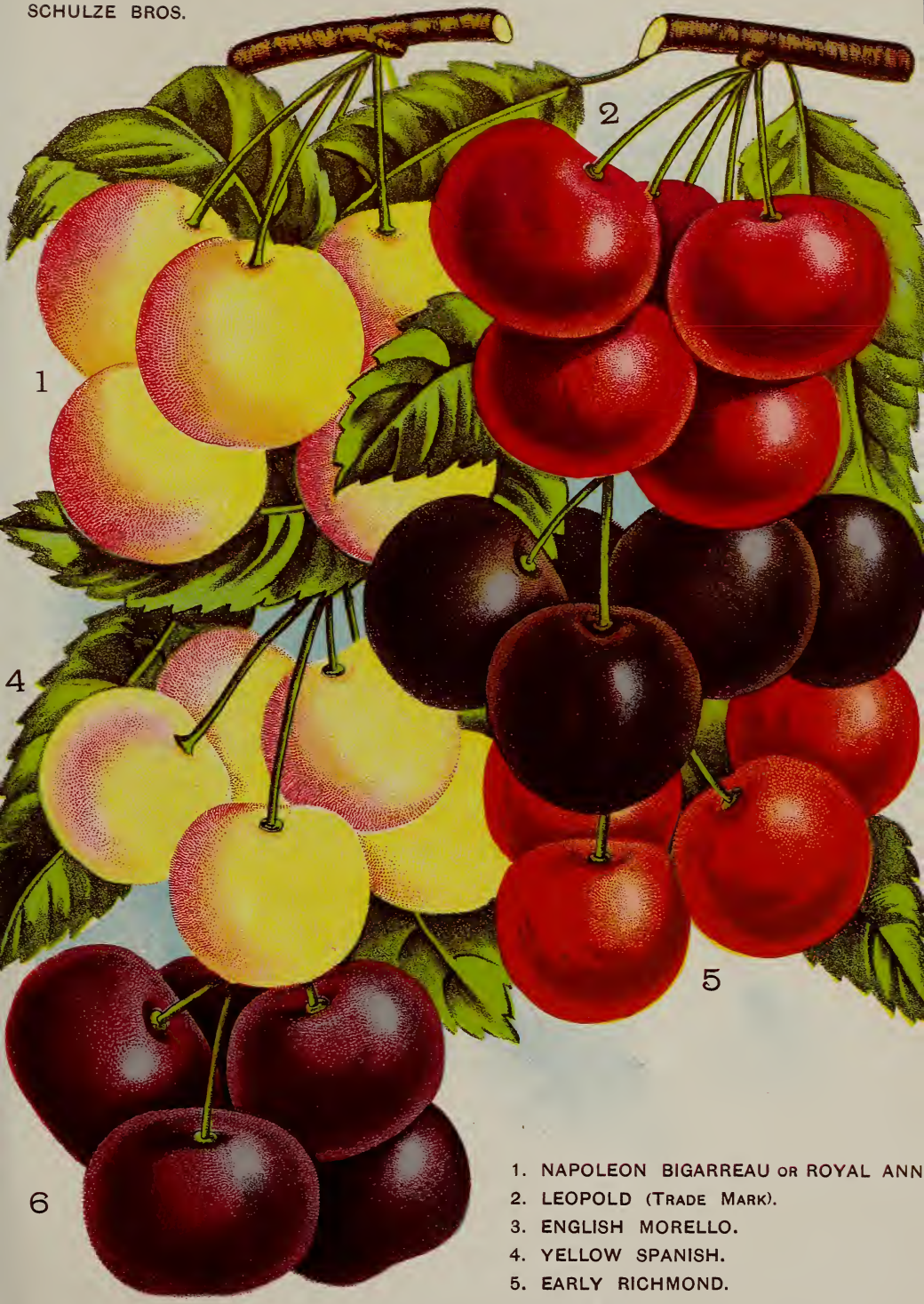
Rocky Mt. Dwarf—Called a cherry, but not a cherry at all—more like a plum; really a fraud, worthless for any purpose.

May Duke—An old, well-known, excellent variety; large, dark red, juicy, sub-acid, rich; tree hardy, vigorous grower and fruitful; fine for home use. Ripens over a long period.

Louis Phillippe—Extra hardy; a vigorous grower and very productive; large size; rich, dark red; flesh red, tender and juicy, with sub-acid flavor. Ripe in July.

Gov. Wood—The finest of Dr. Kirtland's seedlings; clear, light red; tender and delicious; tree a vigorous grower and most productive; fruit hangs well to the tree. Ripe end of June

SCHULZE BROS.



1. NAPOLEON BIGARREAU OR ROYAL ANN
2. LEOPOLD (TRADE MARK).
3. ENGLISH MORELLO.
4. YELLOW SPANISH.
5. EARLY RICHMOND.
6. WINDSOR.

PAINTED FROM NATURE FOR
SCHULZE BROS. NURSERY COMPANY.

NAPOLEON BIGARREAU or ROYAL ANN.

Sweet; one of our best yellow sorts; productive; early June.

LEOPOLD (Trade Mark.)

Is extraordinarily prolific and hardy; very young bearer; mother tree known to have borne 25 successive full crops. Trees attain large size and long lived and will bear from 40 to 60 gallons per tree, of beautiful and attractive red cherries, that will stand shipping, and of best quality for canning; no other cherry will fill the expectations of a cherry as the Leopold. Will do well on thin and heavy land. Earlier than Early Richmond. Sour; clear red; first of June.

ENGLISH MORELLO.

Large, dark red, nearly black; tender, juicy, acid, rich. Tree of a dwarfish habit, but bears large crops; plant 15 to 18 feet. *Best late* cherry known for home and market; a good shipper; young and prolific bearer. Ripe end of July.

YELLOW SPANISH.

Sweet; most popular yellow sort; good in every way. July.

EARLY RICHMOND.

This cherry is not surpassed as an all-round cherry; good for cooking, canning and fine for market; cherry bright red, good size; sure cropper and early bearer.

WINDSOR.

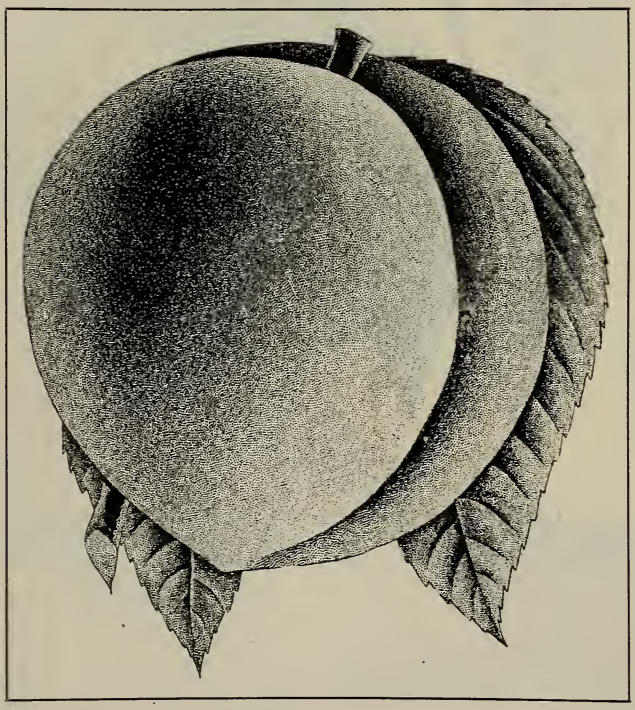
Sweet; fruits easily and heavily; very hardy. July.

Wragg—A very hardy and long-lived tree and an early and annual bearer; cherry a juicy rich acid; of English Morello type; hangs well; fruit large, bright red, turning to a singularly blackish red when fully ripe. From Germany. Ripe end of July.

Peaches.

Ripening in order indicated, from July 4th till October 15th.

KEY—(F) Free; (C) Cling.



SNEED.

Sneed—The earliest peach known, ripening ten days before Alexander; fruit creamy white, well colored with bright crimson; ripens to perfection on the tree and does not rot; quality excellent; very productive; especially valuable on account of its extreme earliness. Plant in extra dry soil. All early peach trees should be planted on the most dry and sunny spots possible. F.

Amsden—Very early; red; large; fine eating; takes well on the market; showy. July 6th. F, C.

Triumph—Red all over, flesh yellow; rich, high flavored and delicious; exceedingly firm, almost a freestone; earliest yellow peach known; two to three days later than Alexander, but larger; will hang a week after ripening; will not drop off nor rot; good quality; vigorous grower and free bearer. Plant Triumph and have some of the early yellows. F, C.

Mamie Ross—A cross of Chinese Cling and Early Rivers; white, with a red cheek; tree vigorous, hardy and prolific; valuable as Elberta. Mamie is the *White Elberta*. Originated at Dallas, Texas, about 17 years ago.

Champion—Tree productive and very hardy, having withstood a cold of 18 degrees below zero and producing a full crop the following summer. Fruit large to very large, many specimens measuring ten inches in circumference; flavor delicious, sweet; rich and juicy, surpassing many other varieties. Ripens at place of origin, Nakomais, about August 5th. F.

Crosby—Unattractive, dull yellow; not a market peach.

TRIUMPH.

Crawford's Early (MARY'S CHOICE)—One of the most useful peaches grown of the yellow flesh varieties. As a market sort it ranks one of the first; flesh very melting and juicy, with a rich, excellent flavor. F.

Capt. Ede—Large, yellow; very fine; good cropper and excellent shipper; commands high price. Plant Capt. Ede and make no mistake. F.

Elberta Cling—A fine yellow cling; yellow with a red cheek; flesh yellow, small pit; desirable for market and canning.

Old Mixon Free—A leading orchard variety; large, creamy white, with red cheek; flesh white, red at stone; rich and juicy.

Stump the World—A variety from New Jersey of very beautiful appearance; white, with cheeks of a brilliant red; very large, roundish, juicy and sweet; productive and hardy; a standard variety. F.

Elberta—Without doubt this peach is in the lead. The great *money maker*, *shipper* and *quick seller;* at *top* of the market. Flesh yellow; large, handsome form; red and yellow, with a purplish blush, making it very attractive; sells readily at $2.00 per bushel. F.

Gold Dust—Yellow cling, with light to very dark red; rich, juicy; highly esteemed by United States Pomologist Van Deman; also well spoken of by L. A. Goodman, Secretary Missouri Horticultural Society. S. W. Gilbert, of Oregon Co., Mo., says: "Finest canning peach I ever saw." Good shipper.

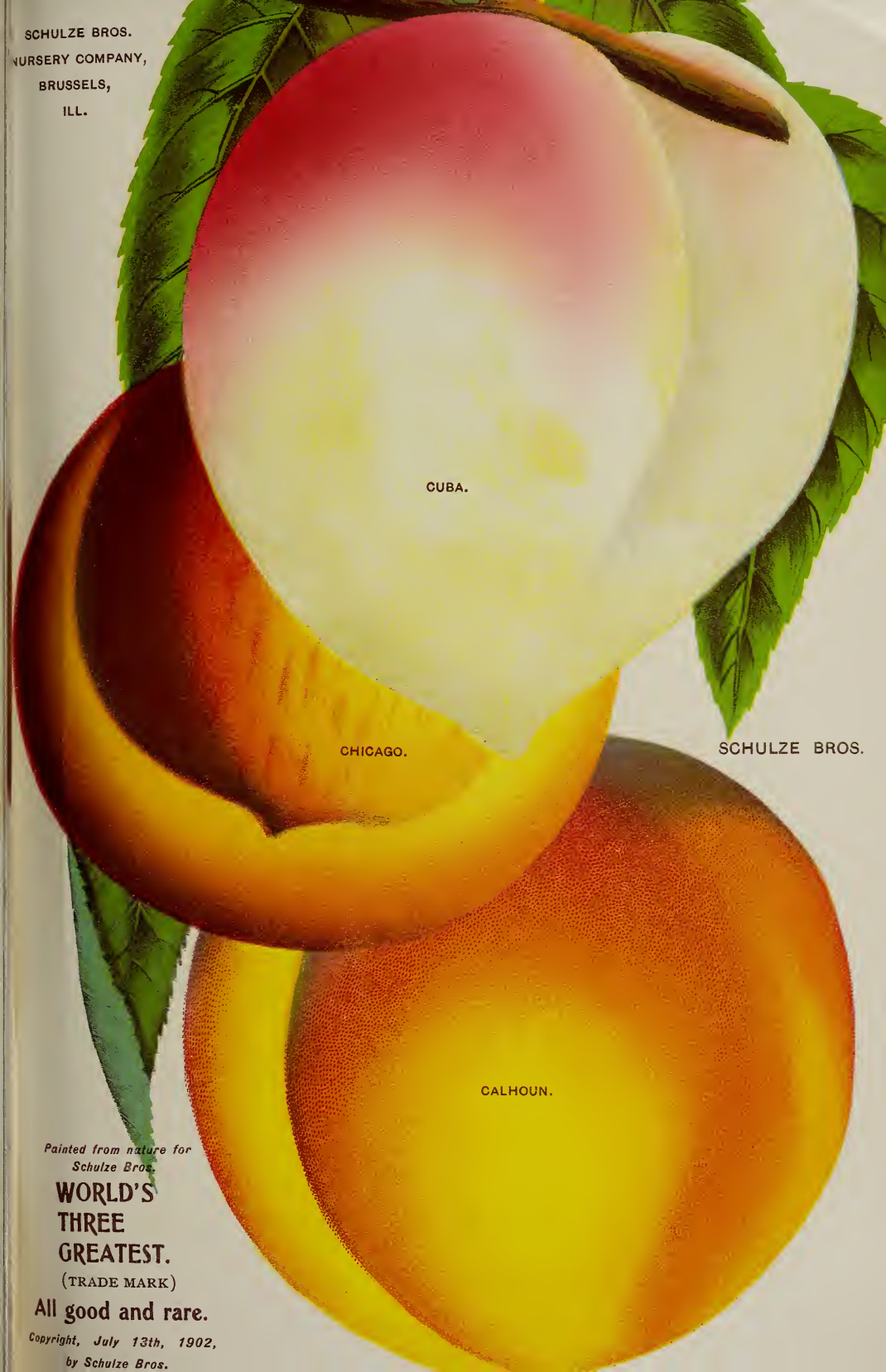
Crawford's Late—(Chair's Choice)—Fruit of large size; skin yellow or greenish-yellow, with a bright red covering, making it very showy; tree vigorous and productive; one of the finest late sorts. F.

Smock—Improved; yellow, with a full blush; large; flesh yellow; juicy and rich. F.

Heath's Cling—(White Heath)—This old and well-known sort, like the Ben Davis apple, came to stay. Clear white, with a blush; small pit; sweet and juicy; very hardy and prolific.

Wonderful—Large, uniform in size and shape; color rich golden yellow, largely overspread with vivid carmine, resembling crimson; flesh yellow, rich, highly flavored and delicious; exceedingly firm; bright red at pit, which is very small; a perfect freestone. Ripe October 15th.

SCHULZE BROS.
NURSERY COMPANY,
BRUSSELS,
ILL.



Painted from nature for Schulze Bros.

WORLD'S THREE GREATEST.

(TRADE MARK)

All good and rare.

Copyright, July 13th, 1902, by Schulze Bros.

PEDIGREE STOCK

Trees hardy, thriftier than Sneed, large and long lived; latest bloomer, and practically frost-proof; have perfected their fruit two seasons, while other varieties have rotted entirely.

Champion Canners, Ship Well and do not Rot. Grower's Joy, Consumer's Delight.

THE WORLD'S THREE GREATEST.

(TRADE MARK.)

CUBA.

Largest Cling growing; follows Heath Cling. Very small **seed**; flesh white, juicy, firm; delicious quality. Brings **highest** price on **Chicago Fancy Market.** A remarkable Peach.

CHICAGO.

Yellow, free, **large,** even when tree is loaded with fruit; quality **superior** to any yellow Peach. Cooks well; ripens with Capt. Ede; handsome, uniform, **large** and **showy.**

CALHOUN.

Has no superior in flavor, and for profit, is without a rival; large, yellow, free; rich in color; flesh very firm, juicy; skin tough. Ripening before Elberta.

Stock budded with buds left on natural wood to avoid deterioration, so the tree is the true wood.

Apricots.

Alexander—(Russian)—An immense bearer; fruit yellow, flecked with red; very beautiful. July.

Harris—Remarkable for size, beauty and productiveness. Is extremely hardy, standing the severest winters. Fruit of a rich, golden yellow and of the finest quality. July.

Royal—From France. Ripens a week earlier than Moorpark; flesh orange yellow; fine, juicy, rich flavor. Ripens early.

Plums.

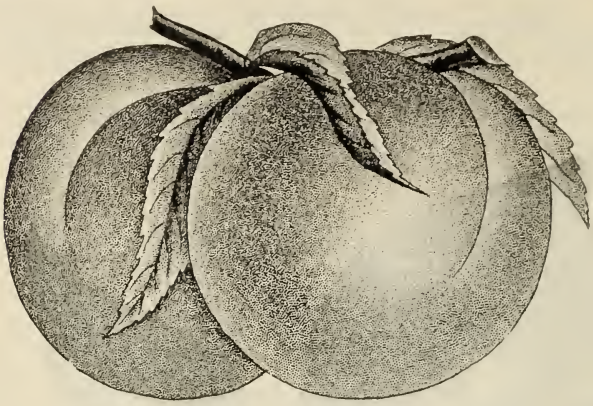
ABUNDANCE.

Abundance—The popular new Japanese plum; tree thrifty, hardy and beautiful; fruit large showy, richly perfumed; overlaid on the sunny side with dots and splashes of red; nearly blush-red on opposite side; flesh deep yellow; juicy and sweet. August.

America—Fruit larger than the average Japan and much larger than the popular native sorts. Color bright golden-yellow with pink blush, white bloom, many small white dots; flesh yellow, moderately firm, good quality. In growth and appearance tree resembles our natives;

AMERICA—Continued.

productive, bears young; should prove hardy and succeed wherever plums can be grown. A good keeper, ripening before Robinson or Burbank.



AMERICA.

Burbank Largest and handsomest of the wonderful new Japanese plums; tree thrifty, free from black knot and other diseases and perfectly hardy. Fruit is not much attacked by the curculio and ripens just after Abundance. A very great acquisition; roundish-conical in form, the point generally blunt; ground color orange-yellow, rather thinly overlaid with red; flesh firm, yellow, rich.

peach, deep dark red; skin firm; flesh yellow, sweet, rich, fruity, of fine quality. One of the earliest to ripen. Mr. Burbank regards this as one of his most valuable productions.

Gage, Imperial — Medium to large; oval; greenish; rich, juicy, excellent; freestone; tree vigorous grower; very productive. August 15th.

German Prune—Popular everywhere; good for table use; esteemed for drying and preserving. The only prune.

Illinois Green Gage—Small, but of the highest excellence; tree a moderate grower; very productive. Greatly improved over the common Gage.

Red June—Japanese origin. Prof. Bailey, of Cornell, says: "By all odds the best Japanese plum." Ripens before Abundance; fruit good size, brilliant red, with blue bloom; extra early, very hardy, late bloomer, hence a sure cropper; excellent canning plum, Damson flavor. On account of its being so early, it is almost exempt from rot. We recommend red June as an all-round plum.

CLIMAX.

GERMAN PRUNE.

Climax — Extremely vigorous, upright grower, Productive as Burbank, four times as large, two weeks earlier and higher color. Fruit large as an ordinary

Shiro — A strong grower; wood hard and wiry, ripening early; should prove of great value in sections too cold for some of the best sorts. Fruit is pro-

SHIRO—Continued.

duced in profusion, medium to large, clear light yellow, with thin white bloom, so transparent the pit can be seen through the flesh, which is firm, juicy, rich, pleasant sub-acid; ripens two weeks before Burbank and nearly as productive.

Shropshire Damson—An English variety of great merit for preserving. Larger and more desirable than the common Damson; tree vigorous grower, hardy and abundant bearer; color blue and purplish. A great market plum, selling at 90c to $1.00 per one-half bushel.

Sultan — Also known as Occident. A rapid, compact grower; very productive; fruit falls like apples as soon as ripe. Fruit large, spherical; dull red with blue bloom; delicious, sub-acid; one of the best for cooking; fine keeper and shipper. Will attract attention anywhere by their unusual size and beauty of form and color. Ripens about a week before Burbank.

Wild Goose—A native plum of high value; should be in every orchard; size large, deep red, good quality and very productive; well known. Plant Wild Goose and have an abundance of plums.

Wickson—Of Japanese origin; large to very large; quite attractive, firm, deep maroon-red; aromatic, good keeper; has withstood 22 degrees below zero without injury. No mistake in planting for market; will sell quick at top price.

Quinces.

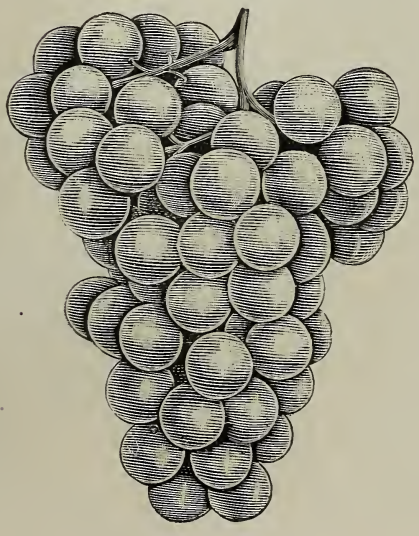
Champion—Fruit very large, larger than Orange; fair and handsome; tree productive, bears abundantly while young; long keeper. Originated in Connecticut.

Meech's Prolific—A valuable quince, remarkable for its early and regular bearing and productiveness. The fruit is of good size and form; bright orange-yellow; flesh very fragrant, delicious and tender. Unsurpassed for cooking. Claimed by some to excel Orange, Champion, etc.

Orange—The most popular quince; bright yellow, large, roundish, very productive; an all-around quince. September to October.

Grapes.

Select from the Following and Grow Grapes.



BRIGHTON.

MOORE'S EARLY.

Brighton—A superior family grape. Its remarkable vigor and hardiness of vine, large, compact bunches, rich wine shade of the ripened berry, delicate skin, tender, almost seedless pulp, sugary juice and rich flavor, are combined qualities that are not united in such a degree in any other sort. It ripens a week or ten days before the Delaware, and bears most abundantly. Especially commended as a standard variety for the vineyard or garden.

GRAPES—Continued.

Campbell's Early — Strong grower, with large, healthy foliage; productive; its keeping and shipping qualities are equaled by no other early grape. Ripens with Moore's Early, but will keep in sound, perfect condition long after that variety is gone. Bunch and berry large, glossy black, with blue bloom; sweet and juicy; seeds few and small; part readily from the pulp. Stands at the head of early black grapes for quality.

Catawba—Berries large, round; when fully ripe of a dark copper color, with sweet, rich musky flavor. Requires a long season to arrive at full maturity.

Concord—A large, handsome grape, very hardy and productive. Succeeds over a great extent of country; is one of the most popular market grapes. Ripens middle of September.

Delaware—One of the finest grapes. Bunches small, compact, shouldered; berries rather small, round; skin thin, light red; flesh very juicy, with an exceedingly sweet and delicious flavor; vine moderately vigorous, hardy and productive. Ripens two weeks before the Isabella.

Diamond—(Moore's Diamond)—A cross between Concord and Iona. A vigorous grower, with leaf resembling Concord; very free from mildew. Bunch large, well filled, moderately compact; berry about the size of Concord; flesh melting and juicy, sweet to the center, and free from foxiness, skin thin, but sufficiently tough to bear packing and handling well. Ripens about with Delaware. Very productive.

Moore's Early—Bunch large, berry round; color black, with a heavy blue bloom; quality better than the Concord. Vine exceedingly hardy; has been exposed to a temperature of more than 20 degrees below zero without injury, and is entirely exempt from mildew or disease. Its earliness makes it desirable for an early crop, maturing as it does ten days before the Hartford, and twenty before the Concord.

Niagara—The vine is a strong grower and very hardy. Bunches very large and uniform and very compact; berries larger than Concord, and skin thin but tough, which insures their shipping qualities; quality good, very little pulp, melting and sweet to center; ripens before Concord.

Worden—Said to be a seedling of the Concord. Bunch large, compact, handsome; berries large—larger than those of the Concord. It ripens a few days earlier, and is superior to it in flavor. Destined to become very popular for the vineyard and garden.

Currants.

Fay's Prolific — (Red) — Originated in Chautauqua Co., N. Y. A cross between Cherry and Victoria. Of large size, fine flavor and claimed to be twice as prolific as the Cherry. Universally commended by those who have seen or had experience with it.

Naples—(Black)—Large, rich and tender; excellent for jellies and wine.

CURRANTS—Continued.

Pomona—A new red currant from Indiana; claimed to be more prolific, with fewer seeds and sweeter than the common sorts. Color a beautiful clear, bright red; about the size of Victoria; easily picked and hangs a long time after ripening.

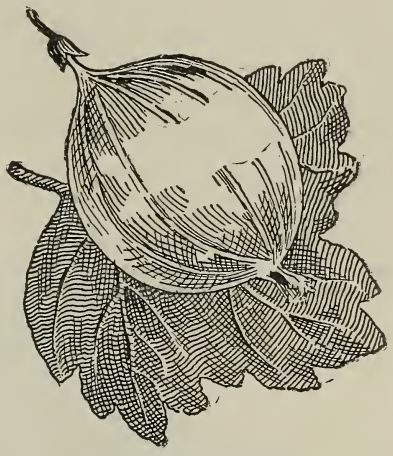
Red Dutch — An old well-known sort. Medium size, good quality and very productive.

Gooseberries.

Houghton's Seedling—A vigorous American sort; very productive; free from mildew. Fruit medium, roundish, smooth, of a pale red color; tender, sweet, and of delicious flavor.

Red Jacket—A new red berry of large size and good quality; hardy and productive.

Pearl–The most prolific gooseberry known. Originated by Prof. William Saunders, of the Experimental Station at Ottawa, Canada. It has also been thoroughly tested at nearly all of the Experimental Stations in the United States for the past four years, and reports are unanimous in its favor. It is a wonderful cropper, strong grower and free from mildew. Fruit one third larger than Downing.



PEARL GOOSEBERRY.

Raspberries.

CUMBERLAND.

RASPBERRIES—Continued.

Cumberland — (Black) — Bush perfectly hardy; very productive; fruit enormous, quality unsurpassed. The great firmness of the berry makes it a splendid shipper; ripens just after the Palmer and before the Gregg. **A great acquisition.**

Cuthbert —(Queen of the Market) – Large, conical; deep, rich crimson; firm, of excellent quality. A vigorous grower, entirely hardy, and immensely productive.

Doolittle—(Doolittle's Black Cap)—This is an improved variety of the common black cap, of medium size, with pleasant sub-acid flavor; much esteemed; hardy.

Loudon —(Red)—Canes strong and hardy and wonderfully productive. Berries large size, beautiful color and fine quality. Very desirable for home or market.

Kansas Jet black, firm and delicious; as large or larger than Gregg; the hardiest black cap known, successfully withstanding the winters of Canada. A little later than Souhegan, and more prolific. One of the very best.

Mammoth Cluster—Large size, black or dark purplish black; very juicy, high flavored and delicious; perfectly hardy and sufficiently firm to bear transportation to the most distant market.

Ohio—A very strong growing, hardy sort; fruit as large as Mammoth Cluster and more productive; valuable for market and much esteemed for drying.

Blackberries.

EARLY KING.

Early Harvest—The earliest blackberry and consequently valuable for market. The canes are strong and upright in growth and enormously productive. Berries sweet and of the highest quality, though not so large as some others.

Eldorado — A new seedling from Ohio, claimed to be the best all-round berry yet produced, combining nearly all the good qualities found in a blackberry.

Early King—Earliest, our favorite; one week earlier than any other; productive; quite large; of good quality.

Lucretia— Dewberry—A trailing form of the blackberry, with large, beautiful, luscious fruit. It matures in advance of the ordinary varieties.

Snyder—Extremely hardy, enormously productive; medium size; no hard, sour core; half as many thorns as Lawton or Kittatinny.

Rhubarb.

Myatt's Linnæus—The best. Early; very large, productive, tender and delicately flavored. 25 cents each; $2.00 per ten.

Strawberries.

The best time to plant strawberries is in the spring, and on fertile, well-manured land. Those marked (P) are pistiliate or imperfect blossoms, and should have a row of of some staminate or perfect variety within 15 feet, or they will usually produce imperfect fruit.

MARSHALL.

Beder Wood—A desirable berry for nearby market or home use; berry is round, medium in size, regular; plant productive. Early

Bubach No. 5—(P)—One of the best varieties grown. In productiveness, unsurpassed. Mid-season.

Brandywine—Extra large, handsome, firm, very fine. Mid-season.

Cumberland Large, fine, round. One of the best for home use. Early.

Crescent—Very productive, medium, rather poor quality; succeeds with little care. Early.

Gandy—Large, handsome, fine; one of the best late; requires rich soil.

Greenville—(P)—Large, showy, productive; early, firm, very even, healthy.

STRAWBERRIES—Continued.

Haverland—(P)—Profitable for near market. Large, productive. Early.

Marshall—Large size and fine flavor; perfect bloomer. Of perfect form; dark crimson when fully ripe; valuable for market.

Sharpless—Large, rather soft, good; popular; needs rich soil. Mid-season.

Parker Earle–Plant very robust, with strong, penetrating roots; enormously productive; flowers perfect; berries glossy, scarlet-crimson. Season medium to late.

Saunders–Enormously productive; flattened conical berries of deep red.

Timbrell—(P)—A large, dark crimson berry; very firm, high quality; the vine is a thrifty grower, with rank, dark foliage. A good yielder; the latest to bloom and ripen.

Warfield No. 2—P)—It is rapidly taking a prominent place among the market berries. The plant is a vigorous grower, tough and hardy, and exceedingly productive; is free from rust; the color is dark glossy red. Holds its color and form a long time after being picked.

Useful Tables.

Suitable Distances of Trees, Etc, in Planting.

Apples—Standard	30 to 30	feet apart,	each way.
" Pyramidal	15 to 18	"	"
" Dwarf (bushes)	10	"	"
Pears—Standard	20 to 25	"	"
" Pyramidal	16 to 18	"	"
" Dwarf	10	"	"
Cherries-Standard	18 to 20	"	"
" Dukes and Morellos	16 to 18	"	"
Plums—Standard	16 to 18	"	"
" Pyramidal	10 to 14	"	"
Peaches	16 to 18	"	"
Apricots	16 to 18	"	"
Nectarines	16 to 18	"	"
Quinces	10 to 12	"	"
Currants	3 to 4	"	"
Gooseberries	3 to 4	"	"
Raspberries	2 to 4	"	"
Blackberries	2 to 8	"	"
Strawberries	1½ to 3	"	"
" For cultivation for market, with horse hoe or cultivator	3 to 4	"	"
Grapes	6 to 8	"	"

Number of Plants on One Acre, at Various Distances.

At 3 feet apart, each way	4,840
" 4 " "	2,729
" 5 " "	1,742
" 6 " "	1,200
" 8 " "	680
" 10 " "	430
" 12 " "	325
" 15 " "	200
" 18 " "	135
" 20 " "	110
" 25 " "	70
" 30 " "	50

To estimate the number of Plants required for an acre, at any given distance, multiply the distance between the rows by the distance between the plants, which will give the number of square feet allotted to each plant, and divide the number of square feet in an acre (43,560) by this number, the quotient will be the number of plants required.

Directions for Transplanting Trees and Shrubs.

Preparation of the Soil—For fruit trees the soil should be dry, either natural or made so by thorough drainage, as they will not live or thrive on a soil constantly saturated with stagnant moisture. It should also be well prepared by twice plowing, at least, beforehand, using the subsoil plow after the common one at the second plowing. On new, fresh lands, remanuring will be unnecessary; but on lands exhausted by cropping, fertilizers must be applied, either by turning in heavy crops of clover, or well decomposed manure or compost. To insure a good growth of fruit trees, land should be in as good condition as for a crop of wheat, corn or potatoes.

Preparation of the Trees—This is one of the most important operations to be performed, and one in which the most fatal errors are liable to be committed. The object of pruning is two-fold. First, to secure a head properly shaped and sufficiently open to the sun and air for the successful ripening of the fruit; and second, to preserve the natural balance between the roots and branches of the tree, that a healthy growth may be secured.

When young trees are removed from the Nursery and many of the roots are broken and destroyed, as will be the case however careful the packing and transportation may be performed, it becomes very necessary that the balance should be preserved by a proper and judicious pruning. This pruning should be adapted to the size and condition of the tree, and at the same time the form should not be forgotten. It should be so close as to enable the roots to supply the demand for sap from the remaining branches, and at the same time no growth already secured should be wasted,

In both standard and dwarf trees, it will be usually found a safe rule to cut back in pruning at transplanting one-half the growth of the previous season. The ends of the larger roots should be made smooth with a sharp knife where they have been roughly cut by the spade in digging, as new roots will form and the injured parts heal more readily with this attention.

Planting—The holes should be dug large enough in the first place to receive the roots of the tree without cramping or bending them from their natural position. The tree having been properly pruned, should be held upright and the earth filled in about the roots, the finest and best soil from the surface being worked in among them, filling every space and bringing ever root fully in contact with it. In extremely dry weather a pail of water may be poured upon the earth, to settle it about the roots, but this is seldom necessary. Finish the planting by placing soil enough about the tree to raise it somewhat higher than elsewhere, and press the soil carefully down with the foot. Care must be taken against planting too deep; when the earth settles about the tree it should stand at the same height as when in the Nursery. When set in autumn it is well to raise a mound of earth about the tree about a foot or more in height. This will keep them from being swayed by the winds or thrown out by the frost during the winter. It should be removed in the spring. In planting dwarf trees the stock on which they are budded, and no more, should be under ground. They will then stand firmly and will not lose their dwarf character by the rooting of the standard stock.

Staking—If trees are tall or in exposed situations, they should be supported by stakes to prevent injury from the action of the wind. Staking is done in the best manner by driving two strong stakes firmly in the ground, one on each side of the tree about a foot distant from it, and fastening the tree between them with bands of straw or other soft material, so that it may be kept in an upright position without chafing until the roots obtain a firm hold upon the soil.

Mulching—This is properly done by placing a layer of coarse manure or litter from three to six inches about the tree. extending one or two feet further in each direction than the roots. This keeps the ground moist and of equal temperature, renders watering unnecessary, and is in all respects preferable to it. Trees properly mulched are more certain to live and make much greater growth than those which are not so treated.

Cultivation after Planting—Here is the grand opportunity for the success of the skillful fruit grower. It is not enough for him that his trees are of the choicest sorts, selected with regard to the climate and adaptation to the uses for which they are designed, that they are properly pruned and planted in dry, mellow soil, thoroughly enriched and prepared for their reception, protected from the winds by proper stalking, and that they are perfect in shape and thriftiness. He knows very well that all this may be properly and well done at great expense, and without further care be followed by an entire failure.

DIRECTIONS FOR TRANSPLANTING, Etc.—Continued.

So he watches their growth and defends them from their enemies, that the cankerworm and caterpillar do not find safe lodgment among their branches, nor the borer cut its way into their trunks, that the grasses do not form a close turf about them, or the cattle obtain access to them by neglected gates or fence corners, and break down the tender branches. He is well repaid, for they thrive and grow rapidly, the shoots are vigorous, the bark clean and smooth, and soon a most abundant crop of superior fruit testifies to his wisdom and care. His neighbor, perhaps with better soil, and equal care and experience in planting, having at the outset neglected these apparently trivial, but really important matters, sees instead of thrifty trees loaded with luscious fruit, the wreck of his hopes in a few mossy, scraggy, mis-shapen specimens of what he considers his ill-fortune, and hastens to remove. He, too, is justly rewarded for his neglect, as is his more prosperous neighbor for his care.

Those who are obliged to plant trees in a field of grain or grass, should see that all such are carefully mulched with rough manure, and that the ground is kept loose and moist about the tree. A hoed crop is greatly preferable in such plantation for the first five years. After a growth for this time, standard apple, pear, cherry and plum trees will grow and produce fairly in turf. The dwarf trees should always be well mulched every year with loose manure, and the ground thoroughly cultivated. They will amply repay for this attention in the increased quantity and improved quality of the fruit.

Treatment of Trees that have been frozen in the Packages, or received during Frosty Weather, or after long Exposure—Place the packages, unopened, in a cellar or some such place, cool, but free from frost, until perfectly thawed, when they can be unpacked, and either planted or placed in a trench until convenient to plant. Treated thus they will not be injured by freezing.

Dry Trees—If trees are delayed or miscarried so as to become dry, shriveled, apparently dead, bury them in moist earth, cover them entirely over; pour on water and keep wet from three to four days. When the trees are swollen and the bark appears fresh and bright, plant at once. **Do not** put into a pond of water. The water will loosen the bark and cause it to rot.

Pruning—Pruning after the first year should be varied according to the purpose of the planter and the variety of the tree. It should be trimmed as early as possible up to the height it is intended the future head should be, and the cutting off of large limbs may not in future be necessary. The removal of large branches should be avoided in all cases, whenever it is possible to do so, as decay is liable to commence at the point of separation and extend into the trunk; and whenever it is done, the wound should be carefully pared smooth, and a coating of paint or grafting wax applied to protect it from the action of the weather. After the removal of lower branches until the head has reached the desired height, the only pruning needed is to remove such branches as are crossing or interfering with each other; and to keep the head in symmetrical shape and well open to the sun and air. Trees should receive proper shape by judicious pruning and attention early in the spring of each year while they are young, and very little pruning will be needed afterward. When trees are to be pruned and trained for specific purposes and in a special manner, the orchardist will find full directions in the standard works on horticulture, which may be read with great benefit and followed with success, but are beyond the scope of an ordinary Catalogue.

Grape Vines—Require a dry, mellow, well-drained soil, deeply worked and well enriched, with a warm, sunny exposure. In planting give the roots plenty of room, and settle the soil firmly about them. A strong vine may be allowed to grow the first season without pruning; in November and December following, the growth should be cut back to three or four buds; the next season allow but two buds to grow, which should make canes seven to ten feet long and be cut back four to five feet, ready for fastening to the trellis. For the subsequent pruning of vines as well as trees, planters should do well to consult some practical work on the subject.

Berries—Should have a strong soil and be kept under constant cultivation. Mulching is of especial value. Raspberries and Blackberries should have old wood cut out each year, and new canes pinched off when three feet high. Strawberries should be mulched late in the fall; uncover the crown early in spring; remove mulch after fruiting and spade in light dressing of manure. If set for fruit, keep the runners cut off.

Currants and Gooseberries—Need heavy mulching and pruning, so that new wood will have room to grow.

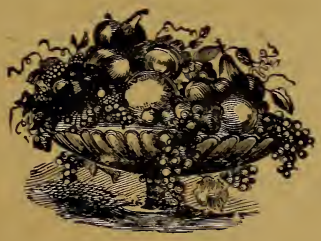
Roses—Should have a deep, rich, well-drained soil, and should be severely pruned every spring before the buds start, cutting back all the last growth to three or four buds, except Climbing Roses, which may be first allowed to partly cover the space desired. Old decayed branches should never remain. Every Autumn compost should be placed around the stems of the plants, and spaded into the ground in the following Spring.

Wintering Nursery Stock Procured in the Fall.

In sections where the winters are very severe, it is not advisable to set out young trees and plants in the fall, but the practice of procuring them in the fall, covering them with earth during the Winter, and planting them in the Spring is becoming more and more popular, as experience has demonstrated its advantages. In the Fall Nurserymen are not hurried in their own planting; the season for shipping them is comparatively long, and the weather not nearly so changeable as in the Spring. Railways are not so much hurried and there is much less chance for injurious delays than in the Spring. It being practicable to plant trees so procured as soon as the frost is out, they become thoroughly established the first season.

Some have an impression that trees dug in the Fall and trenched in over Winter are worthless. This is a great mistake. Peach and some other young trees, if left standing during their first Winter, are frequently killed or injured by frost. While if dug in the Fall and treated as below described, they come through bright and uninjured.

To insure success, select a spot where no water will stand during the Winter, having no grass near to invite mice. Dig a trench deep enough to admit one layer of roots, and sloping enough to permit the trees to lie at an angle of not more than 30 degrees with the ground. Having placed one layer of the roots in this trench, cover them with mellow earth, extending well up on the bodies, and **see that this is firmly packed.** Then add another layer of trees overlapping the first, and continuing as at first until all are heeled in. As soon as this is done, cover the tops so well with evergreen boughs that they will be thoroughly protected from winds.



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BY SCHULZE BROS. NUR. CO.

Four Market Keepers and Delicious Apples.

PAINTED FROM NATURE FOR
SCHULZE BROS. NURSERY COMPANY.

Griggsville, Ill., May 3, 1902.

Union (Trade Mark)—Your apples received and will say they have kept well and are very fine, free from worms. The color is good and flavor extra good for this time of the year.

CALDWELL BROS.

Meppen, Ill., April 15, 1903.

The Union Apple is so named on the act of its keeping qualities, uniting one crop with the next and is superior to the Missing Link in flavor, color and keeping qualities, and is a very prolific bearer. Ripens the last of Ootober or first of November. The writer first took particular notice of the fine keeping qualities of this apple the spring of 1901. The tree from which they were gathered was over forty years old and was badly decayed. Being only one lone tree or variety, was left until all other varieties were taken care of. Finding them still firm and all others gone to market, I packed them in barrels and put them in my cellar. Opening them the next April, to my surprise, there was not one apple decayed—just as perfect as when packed. I distributed them among the fruit growers and all pronounced them superior to anything they had seen in quality as keepers and flavor. No cold storage needed to have fine fruit for spring market.

Yours respectfully,

L. J. SMITH.

Hardin, Ill., May 2, 1902,

The samples of seedling apples (Windfalls and Culls) sent me on the 30th of April, I have received and carefully examined. They possess all the good qualities of winter apples. They were perfectly sound for this season of year **and seem to be worm and fly-proof.**

Dr. P. C. BARRY.

Urbana, Ill., May 7, 1902.

Apples received in remarkably good condition for this time of the year; good color, a dark rich red over yellow; free from worms. If tree is hardy and bears well it should be a profitable apple for home or market.

J. V. MINS, Chief in Horticulture.

Jerseyville, Ill., May 15, 1902.

The apples are surely good keepers, for the fruit was crisp and juicy at the time I tasted them, May 13th; the color is very good. It has several good features to recommend it. It is a good keeper, a good color, good flavor; firm and crisp and as sound as a dollar the middle of May. This should make it a valuable apple for orchardists.

A. T. PITT.

Delicious—The tree has never failed to bear heavily since in bearing.—S. L. HIATT, Iowa. Keeps as well as Ben Davis, bruises dry up like Ben Davis and as large; very strong grower, stronger branches than Ben Davis; need little or no pruning, foliage dark green, hardier; has never shown any tenderness. Bears every year; hangs better than Ben Davis; splendid keeper.

Delicious is well named. Have had this year the first opportunity to examine it, from the original tree in Iowa, others grown in California. **Most excellent in quality,** red striped, good size and conical.—PROF. VAN DEMAN, February, 1903, in *Green's Fruit Grower.*

Black Ben Davis—This great seedling of Ben Davis is a decided improvement over the old variety; when better known by orchardists, will be planted instead of Ben Davis. Is a beautiful solid red color, better keeper, better quality, hangs longer, surer bearer, never scalds in cold storage—six most important points in our coming commercial orchards of Black Ben Davis.

J. F. Blain, Lincoln, Arkansas, writes: "I have grafted nine trees from the **original seedling,** and they bear well in my orchard; had **heavy crops** in 1897 and 1899; good **keeper;** trees are ten years old and very much like the Ben Davis, but fruit ripens later; apple is a solid bright red; Black Ben Davis has excelled Ben Davis regular, and was first called Regan Red. Champion (Collins' Red) bids fair to become a leading commercial apple.

U. S. Department of Agriculture.

"Senator (Oliver Red , Champion (Collins' Red) and Apple of Commerce, have proved to be more or less valuable varieties in the Western States. The Black Ben Davis may possibly be an improvement over the old variety. Ingram especially, will say, is growing in favor in your and adjoining States."

G. B. BRACKET, Pomologist.

The Black Ben Davis is a good apple, good size, larger than Gano and better color. Tree a good grower, hardy and good bearer; the old Bens have no business with the Black Ben Davis—WM. F. MEIER, Chelan Co., Wash.

Have only fruited the apples 5-yrs. and find Champion and Black Ben Davis annual bearers. Larger than Gano and more productive.—JAS. W. WAITE, Tenn.

Collins' Red—(Or Champion)—This is a valuable apple, owing to its productiveness and keeping qualities. It is very productive, tree healthy and a good grower in the nursery. Form roundish, oblate, slightly ribbed, large; stem long to medium; cavity deep, usually smooth and green, sometimes slightly russeted; large, regular, rather deep and abrupt; slightly corrugated; color yellow, greenish ground, shaded and striped with red; surface covered with light dots; flesh solid, color light yellowish, moderately coarse, juicy and good. Season winter. This apple, from its splendid habit of hanging on the tree longer than most others, is especially desirable for our section. It comes into bearing early, produces regular crops and is a valuable commercial variety. For quick and sure money, Champion perhaps surpasses Missouri Pippin. The original 40-year-old tree, on poorest post oak flat, shows no decline and bears perfect fruit. Does not become dry, even in late spring; hangs far better than Ben Davis; bears younger and fuller; great drought resister; timber tough, will bend to the ground when loaded, and not break nor split; beautiful foliage. **Absolutely free from Woolly Aphis.**

Champion—Fruited for the third time; good and young bearer; large size, red; would plant in preference to Ben Davis.—E. H. RIEHL, Illinois Horticultural Report, 1902.

CALHOUN PEACH. TWO-YEARS-OLD.